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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,260	10/05/2004	Timothy J Mousley	GB 020128	8734
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EXAMINER PEREZ, ANGELICA				
ART UNIT 2618		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/510,260

Applicant(s)

MOULSLEY ET AL.

Examiner

Perez M. Angelica

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/14/2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-13 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 4/14/2008 have been fully considered but they are not persuasive.

2. In the remarks, the applicant argues in substance:

(A) "...Geraloulis, Hwang, alone or in combination, do not teach or suggest the present invention as recited in independent claim 1, and similarly recited in independent claims 2, 6 and 13, which, amongst other patentable elements, recites (illustrative emphasis provided) .

wherein the secondary station comprises power control means for temporarily increasing the transmission power of at least the part of the second control channel including pilot information for a predetermined period during which the status signal is transmitted.

Hwang does not even disclose or suggest increasing power of a control channel, let alone doing so for a predetermined period during which the status signal is transmitted. Wang, Das, Tiedemann and Miki are cited to allegedly show other features and do not remedy the deficiencies in Geraloulis and Hwang. "

In response to argument (A), the examiner would like to point out where the features described in claims 1, 2, 6 and 13 are broadly written and they are well known. One of ordinary skill in the art can read the claims in any reference that shows a mobile system that performs closed loop power control and acknowledges packages, ACK/NACK. E.g., the applicant claims "temporarily increasing the transmission power",

where as is well known in the art, power control is always changing, so there is a temporary change, increase. In addition, if the power is being controlled, it is controlled for all the channels; therefore, "at least the part of the secondary control channel". In addition, pilot information is part of the information in control channels. Furthermore, all current systems have two control channels, the fast associated control channel (FACCH) and the slow associated control channel (SACCH). Therefore, since the references cited deal with close loop power control as well as ack/nack, they read on the claims.

Claim Rejections - 35 USC § 112

3. Claim 1 recites the limitation, "the second control channel" in lines 12-13.

Claim 2 recites "the uplink control channel" and "the second control channel" in lines 11-12 and 17-18, respectively.

Claim 13 recites "the second control channel" in line 12.

There is insufficient antecedent basis for these limitations in the claims.

Allowable Subject Matter

4. Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-4, 6 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Geraloulis, Diakourmis Parissis (Geraloulis, US 20020101835A1) in view of Wang et al. (Wang, US005933763A) and further in view of Hwang, Seung-Hoon (Hwang, US007203182B2).

Regarding claims 1 and 13, Geraloulis teaches of a communication system and method having a downlink data channel for the transmission of data packets from a primary station to a secondary station (figure 2, "Orthogonal Data Traffic Channel, Forward Link"), a first uplink control channel for the transmission of information relating to reception of data packets from the secondary station to the primary station (figure 2, "Orthogonal Data Traffic Channel, Reverse Link"), and a second uplink control channel for the transmission of pilot information (figure 2, "Contention Access Channel, Reverse Link"), the secondary station having receiving means for receiving a data packet and acknowledgement means for transmitting a status signal on the first control channel to the primary station to indicate the status of a received data packet (figure 4A, "acknowledgement message").

Geraloulis does not specifically teach where the secondary station comprises power control means for temporarily increasing the transmission power of at least the part of the second control channel including pilot information for a predetermined period during which the status signal is transmitted.

In related art concerning a method of link adaptation of blind type using acknowledgments in ARQ system, Hwang teaches where the secondary station comprises power control means for temporarily increasing the transmission power of at least the part of the second control channel including pilot information for a predetermined period during which the status signal is transmitted (figures 5 and 6, columns 5 and 6, lines 58-67 and 1-9, respectively; where the increases in power are temporary until a new change is required/requested).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Geraloulis's wireless system configuration with Hwang's power increase when delivering an acknowledgment in order to increase the probability of successful communication of the paging signal, as taught by Hwang.

Regarding claim 2, Geraloulis teaches of a primary station for use in a communication system having a downlink data channel for the transmission of data packets from the primary station to a secondary station (figure 2, "Microport" and "Orthogonal Data Traffic Channel, Forward Link"), a first uplink control channel for the transmission of information relating to reception of data packets from the secondary station to the primary station (figure 2, "Orthogonal Data Traffic Channel, Reverse Link"), and a second uplink control channel for the transmission of pilot information (figure 2, "Contention Access Channel, Reverse Link"), where means are provided for receiving a status signal on the first control channel indicating the status of a data packet transmitted to the secondary station (figure 4A, where the status signal is an "acknowledgement message"),

Geraloulis does not specifically teach where closed loop power control means are provided for controlling the power of the uplink control channel, and means are provided for adjusting the operation of the power control means for a predetermined period around a time when transmission of a status signal by the secondary station is expected to take into account a temporary increase of the transmission power of at least the part of the second control channel including pilot information.

Hwang teaches where the secondary station comprises power control means for temporarily increasing the transmission power of at least the part of the second control channel including pilot information for a predetermined period during which the status signal is transmitted (figures 5 and 6, columns 5 and 6, lines 58-67 and 1-9, respectively; where the increases in power are temporary until a new change is required/requested).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Geraloulis's wireless system configuration with Hwang's power increase when delivering an acknowledgment in order to increase the probability of successful communication of the paging signal, as taught by Hwang.

Hwang further teaches where closed loop power control means are provided for controlling the power of the uplink control channel (column 3, lines 53-67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Geraloulis's Hwang's wireless system configuration with Hwang's further teachings of a closed-loop power control technique in order to maintain the traffic quality of the forward traffic channel, as taught by Wang.

Regarding claim 3, Geraloulis and Hwang teach all the limitations of claim 2. Hwang further teaches where means are provided for signaling to the secondary station the magnitude of the power increase which should be applied (column 3, lines 53-67, where the BS comprises a transmitter that transmits information regarding the power adjustment necessary).

Regarding claim 4, Geraloulis and Hwang teach all the limitations of claim 3. Hwang teaches where means are provided for signaling a change in another parameter at the same time as a power offset is signaled (column 4, lines 23-37, where the SIR is the other parameter).

Regarding claim 6, Geraloulis teaches of a secondary station for use in a communication system having a downlink data channel for the transmission of data packets from a primary station to a secondary station (figure 2, "Orthogonal Data Traffic Channel, Forward Link"), a first uplink control channel for the transmission of information relating to reception of data packets from the secondary station to the primary station (figure 2, "Orthogonal Data Traffic Channel, Reverse Link"), and a second uplink control channel for the transmission of pilot information (figure 2, "Contention Access Channel, Reverse Link"), where receiving means are provided for receiving a data packet from the primary station and acknowledgement means are provided for transmitting a status signal on the first control channel to the primary station to indicate the status of a received data packet (figure 4A, where the status signal is an "acknowledgement message").

Geraloulis does not specifically teach where power control means are provided for temporarily increasing the transmission power of at least the part of the second control channel including pilot information for a predetermined period during which the status signal is transmitted.

Hwang teaches where the secondary station comprises power control means for temporarily increasing the transmission power of at least the part of the second control channel including pilot information for a predetermined period during which the status signal is transmitted (figures 5 and 6, columns 5 and 6, lines 58-67 and 1-9, respectively; where the increases in power are temporary until a new change is required/requested).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Geraloulis's wireless system configuration with Hwang's power increase when delivering an acknowledgment in order to increase the probability of successful communication of the paging signal, as taught by Hwang.

Regarding claim 12, Geraloulis and Hwang teach all the limitations of claim 6. Hwang further teaches where closed loop power control means are provided for controlling the power of the uplink control channel (column 3, lines 53-67, where closed loop power control is described).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Geraloulis's and Wang's wireless system configuration with Hwang's closed-loop power control technique in order to maintain the traffic quality of the forward traffic channel, as taught by Wang.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Geraloulis in view of Hwang and further in view of Das et al. (Das, US 2003/0157953A1).

Regarding claim 5, Geraloulis and Hwang teach all the limitations of claim 4.

Geraloulis and Hwang do not specifically teach where the other parameter is the number of repetitions of a status signal.

In related art concerning express signaling in a wireless communication system, Das teaches where the other parameter is the number of repetitions of a status signal (paragraph 45).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Geraloulis's and Hwang's wireless system configuration with Das's number of repetitions in order to indicate a number of retransmissions that can be considered acceptable and save resources.

8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Geraloulis in view of Hwang and further in view of Tiedemann Jr. et al. (Tiedemann, US006035209A).

Regarding claim 7, Geraloulis and Hwang teach all the limitations of claim 6.

Geraloulis and Hwang do not specifically teach where the amount by which the transmission power is increased at the start of the predetermined period is different from the amount by which the power is decreased at the end of the predetermined period.

In related art concerning a method and apparatus for performing fast power control in a mobile communication system, Tiedemann teaches where the amount by which the transmission power is increased at the start of the predetermined period is

different from the amount by which the power is decreased at the end of the predetermined period (column 8, lines 3-22, where the energy is proportional to power and where the initial and ending power are different).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Geraloulis's and Hwang's wireless system configuration with Tiedemann's adjustment of power in order to save power.

9. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Geraloulis in view of Hwang and further in view of Miki et al. (Miki, US007185256B2).

Regarding claim 8, Geraloulis and Hwang teach all the limitations of claim 6.

Geraloulis and Hwang teach of means for increasing the transmission power by different amounts depending on whether the status signal is an acknowledgement or a negative acknowledgement.

In related art concerning a communication system and method employing automatic repeat request, Miki teaches of means for increasing the transmission power by different amounts depending on whether the status signal is an acknowledgement or a negative acknowledgement (column 9, lines 13-21 and 53-59 and figure 4, item 82).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Geraloulis's Hwang's wireless system configuration with Miki's's differing power levels depending on ACK/NACK in order to maintain constant reception quality.

Regarding claim 9, Geraloulis and Hwang teach all the limitations of claim 6.

Miki teaches of means are provided for increasing the transmission power by a first amount at the start of the predetermined period and by a second amount when the type of status signal to be transmitted has been determined, the second amount depending on whether the status signal is an acknowledgement or a negative acknowledgement (column 9, lines 13-21 and 53-59 and figure 4, item 82, where the change in power are done periodically and performed as required).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Geraloulis's and Hwang's wireless system configuration with Miki's differing power levels depending on ACK/NACK in order to maintain constant reception quality.

10. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Geraloulis in view of Hwang and further in view of Wang (US005933763A).

Regarding claim 11, Geraloulis and Hwang teach all the limitations of claim 6.

Geraloulis and Hwang do not explicitly teach of means are provided for resetting a timer on detection of an indication that a data packet has been transmitted to the secondary station and in that the predetermined period lasts until the timer expires.

Wang further teaches of means are provided for resetting a timer on detection of an indication that a data packet has been transmitted to the secondary station and in that the predetermined period lasts until the timer expires (column 5, lines 12-18).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Geraloulis's and Hwang's wireless system configuration with Wang's resetting of a clock in order to maintain set interval in the .

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angelica Perez whose telephone number is 571-272-7885. The examiner can normally be reached on 6:00 a.m. - 1:30 p.m., Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on (571) 272-4177. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300 for regular communications and for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either the PAIR or Public PAIR. Status information for unpublished applications is available through the Private PAIR only. For more information about the pair system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). Information regarding Patent Application Information Retrieval (PAIR) system can be found at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2600's customer service number is 703-306-0377.

/P. M. A./

Examiner, Art Unit 2618

July 23, 2008

/Matthew D. Anderson/

Supervisory Patent Examiner, Art Unit 2618